

NSF GRADUATE TEACHING FELLOWS IN K-12 EDUCATION (GK-12)

Program Solicitation

NSF 02-042

DIVISION OF GRADUATE EDUCATION

LETTER OF INTENT DUE DATE(S) (*required*): May 1, 2002

FULL PROPOSAL DEADLINE(S): June 10, 2002



NATIONAL SCIENCE FOUNDATION



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SUMMARY OF PROGRAM REQUIREMENTS

GENERAL INFORMATION

Program Title: NSF GRADUATE TEACHING FELLOWS IN K-12 EDUCATION (GK-12)

Synopsis of Program:

This program supports fellowships and associated training that will enable graduate students and advanced undergraduates in science, mathematics, engineering, and technology to serve in K-12 schools as resources knowledgeable about both the content and applications of science, mathematics, engineering, and technology. Academic institutions apply for awards to support fellowship activities. Institutions are responsible for: 1) selecting Fellows; 2) partnering with school districts for placement of Fellows in schools; and 3) providing appropriate training for Fellows. The Fellows will serve as resources for teachers in science and mathematics instruction. Expected outcomes include improved communication and teaching skills for the Fellows, enriched learning by K-12 students, professional development opportunities for GK-12 Teachers, and strengthened partnerships between institutions of higher education and local school districts.

Cognizant Program Officer(s):

- Dr. Terry Woodin, Division of Graduate Education, Room 907, telephone: (703) 292-8697, e-mail: twoodin@nsf.gov.
- Carolyn Lyons Piper, Division of Graduate Education, Room 907, telephone: (703) 292-8697, e-mail: cpiper@nsf.gov.

Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.074 --- Biological Sciences
- 47.070 --- Computer and Information Science and Engineering
- 47.076 --- Education and Human Resources
- 47.041 --- Engineering
- 47.050 --- Geosciences
- 47.049 --- Mathematical and Physical Sciences
- 47.078 --- Office of Polar Programs
- 47.075 --- Social, Behavioral and Economic Sciences

ELIGIBILITY INFORMATION

- **Organization Limit:**

Proposals may be submitted only by academic institutions that grant masters or doctoral degrees in science, mathematics, engineering, or technology.

- **PI Eligibility Limit:**

The PI must be a faculty member in science, mathematics, engineering, or technology.

- **Limit on Number of Proposals:** None

AWARD INFORMATION

- **Anticipated Type of Award:** Continuing Grant

- **Estimated Number of Awards:** 20

- **Anticipated Funding Amount:** Approximately \$10 million for this competition pending availability of funds.

PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

- **Letters of Intent:** Submission of Letters of Intent is required. Please see the full program announcement/solicitation for further information.
- **Full Proposals:** Supplemental Preparation Guidelines
 - The program announcement/solicitation contains supplements to the standard Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full program announcement/solicitation for further information.

B. Budgetary Information

- **Cost Sharing Requirements:** Cost Sharing is not required.
- **Indirect Cost (F&A) Limitations:**

8% of Total Direct Costs, excluding fellowship stipends, cost-of-education allowances, and equipment.
- **Other Budgetary Limitations:** Other budgetary limitations apply. Please see the full program announcement/solicitation for further information.

C. Deadline/Target Dates

- **Letters of Intent (*required*):** May 1, 2002
- **Preliminary Proposals (*optional*):** None
- **Full Proposal Deadline Date(s):** June 10, 2002

D. FastLane Requirements

- **FastLane Submission:** Required
- **FastLane Contact(s):**
 - Sheryl Balke, Division of Graduate Education, 907, telephone: 703-292-8630, e-mail: sbalke@nsf.gov.

PROPOSAL REVIEW INFORMATION

- **Merit Review Criteria:** National Science Board approved criteria. Additional merit review considerations apply. Please see the full program announcement/solicitation for further information.

AWARD ADMINISTRATION INFORMATION

- **Award Conditions:** Additional award conditions apply. Please see the program announcement/solicitation for further information.
- **Reporting Requirements:** Standard NSF reporting requirements apply.

I. INTRODUCTION

The National Science Foundation (NSF) recognizes that graduates of higher education programs in science, technology, engineering, and mathematics (STEM) can contribute to the national effort to address the challenging issues in K-12 education across a broad spectrum of schools and educational levels. In particular, STEM graduate students can partner with K-12 Teachers to work towards improving the content of STEM taught in their classes. While the focus of this initiative is on graduate students serving as resources for K-12 education, advanced undergraduate STEM majors may be included as appropriate to further the goals of individual projects. NSF anticipates that, in the future, GK-12 Fellows will continue to contribute toward the improvement of the nation's educational enterprise. Education will benefit from the contributions of professionals who will have classroom experience and an understanding of topics in STEM education such as how scientific knowledge and the process of inquiry can be communicated to K-12 students in a variety of settings, how teaching and learning can be assessed, how new disciplinary knowledge can be incorporated in curriculum development, and how technology can be used to advance the teaching of STEM. The higher education community will benefit from the improved preparation of pre-college students in STEM. The K-12 Teachers involved in GK-12 projects will benefit from professional development opportunities.

To support these opportunities, the Foundation continues to offer the **NSF Graduate Teaching Fellows in K-12 Education (GK-12)** program. Approximately \$10 million is expected to be available to support approximately 20 awards for this competition. Awards are expected to be in the range of \$300,000 to \$500,000 per year for two to three years.

The GK-12 program is managed by the Directorate for Education and Human Resources (EHR) and supports the training of students in STEM disciplines covered by all NSF's Directorates and the Office of Polar Programs (OPP).

II. PROGRAM DESCRIPTION

The GK-12 program provides opportunities to highly qualified graduate and advanced undergraduate students in NSF-supported disciplines to serve directly as STEM resources in the Nation's K-12 schools. The program intends to:

- enhance the level of interaction in science, mathematics, engineering and technology education among K-12 schools and higher education in ways positive for all;
- enhance both appreciation and capability of graduate students for high quality science, mathematics, engineering and technology teaching; and
- enhance both appreciation and capability for content-rich, inquiry-based approaches in K-12 schools.

GK-12 Fellows, selected by awardee institutions, will work directly with GK-12 Teachers in and out of the classroom to, for example:

- connect K-12 learning to scientific methods needed for further study in STEM disciplines;
- provide role models for future STEM professionals;
- enhance GK-12 Teachers' content knowledge and understanding of principles of science and mathematics; and
- cooperate in science and mathematics instruction.

Expected outcomes include:

1. improved communication and teaching-related skills for Fellows,
2. content gain and professional development opportunities for GK-12 Teachers,
3. enriched learning by K-12 students, and
4. strengthened partnerships between higher education institutions and local school districts.

Principal Investigators (PIs), school representatives, GK-12 Teachers and STEM faculty must work together in the development of the GK-12 proposal. It is imperative that a partnership among all potential parties involved in the proposed project is developed early. For example, PIs and school representatives are encouraged to discuss types of incentives and rewards for GK-12 Teachers to ensure their participation in GK-12 projects.

Although training activities on the campus of an institution of higher education may be part of the project plan, it is expected that the preponderance of GK-12 Fellows' activities with GK-12 Teachers and students will occur in K-12 schools. PIs are encouraged to establish collaborative arrangements with other institutions (e.g., two- and four-year institutions, industry, non-profit organizations, and museums) to support their activities.

III. ELIGIBILITY INFORMATION

A. Institutions*

Academic institutions in the United States and its territories that grant masters or doctoral degrees in STEM disciplines supported by NSF are eligible to apply. An institution may submit up to two single-institution proposals, and as lead institution, one multi-institution proposal, per round of competition. When multiple institutions are involved, a single institution must accept overall management responsibility. Collaborating institutions may include two- and four-year colleges or non-academic institutions, industry, non-profit organizations, museums, etc. NSF does not anticipate making more than one GK-12 award to a single institution as a result of any single competition. Projects involving any of the STEM fields normally supported by NSF are eligible. Projects may draw participants from two or more departments within one institution or from more than one institution.

*An institution is defined as a separate legal and fiscal entity, whether at the central or system level, or branch campus level, which can receive awards and which is separately and consistently identified at that level for federal research and development reporting purposes through a Federal Entity Number. NSF institution codes ARE NOT entity numbers.

B. Principal Investigator

The PI must be a faculty member in a NSF-supported discipline and should serve as the director of the GK-12 project. Faculty members involved in the science and teaching of learning are encouraged to serve as Co-PIs. Staff from collaborating institutions (as described above) as well as K-12 school leaders may also serve as Co-PIs.

C. Fellows

GK-12 Fellows will be selected by awardee institutions, but must be:

- citizens, nationals**, or permanent residents of the United States at the time of application; and
- graduate students enrolled in STEM programs or advanced undergraduate STEM majors who have demonstrated a strong proficiency in mathematics and science.

** The term "national of the United States" designates a citizen of the United States or a native resident of the US possession such as American Samoa. Foreign students who hold student visas are not eligible.

D. GK-12 Teachers

GK-12 Teachers should have sufficient experience in pedagogy to help improve the communication and teaching-related skills of the GK-12 Fellows.

IV. AWARD INFORMATION

The number and size of awards will vary depending upon the scope of projects and availability of funds; however, it is anticipated that approximately **20** institutional awards in the range of \$300,000 to \$500,000 per year for a period of two to three years will be made as a result of this competition.

STIPENDS AND ALLOWANCES

The stipend for a graduate student will be \$21,500 for a 12-month tenure. In addition, the grantee institution will be allowed a cost-of-education allowance of \$10,500 per tenure year per graduate student in lieu of tuition and fees normally charged to students of similar academic standing, unless such charges are optional or refundable. The stipend for an undergraduate student will be \$5,000 per academic year and \$5,000 per summer. All Fellows will spend a minimum of ten hours per week providing direct assistance to K-12 teachers and five hours of preparation outside of the classroom.

The stipends for GK-12 Teachers may support their professional contributions to various GK-12 planning and implementation activities. These activities may include participation in summer educational institutes, travel support for professional meetings, involvement in weekend and evening workshops, and after-hours mentoring of Fellows through the project. Funds for GK-12 Teacher compensation may be up to 15% of the funds allocated per year for a Fellow's stipend (i.e. 15% of \$21,500 or \$3,225 per year for GK-12 Teacher compensation).

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Letters of Intent:

A letter of intent is required before submitting a full proposal and is intended to enhance the efficiency of the review process. The letter of intent is not a preliminary proposal. It is a brief statement that must address the following: 1) essential features of the project design; 2) principal investigator and list of faculty participants including their disciplines/departments and institutional affiliation; 3) K-12 school district participants and their affiliation; 4) disciplines to be covered by GK-12 Teachers and GK-12 Fellows; 5) Grade band: high school, middle school or elementary grades; and 6) Project setting: rural, urban, suburban. Letters of intent must be sent by electronic mail to gk-12@nsf.gov by May 1, 2002. **A letter of intent is required for all potential applicants including those who were declined in FY 2002 and are interested in re-applying to the program.**

Full Proposal:

Proposals submitted in response to this program announcement/solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF *Grant Proposal Guide* (GPG). The complete text of the GPG is available electronically on the NSF Web Site at: <http://www.nsf.gov/cgi-bin/getpub?gpg>. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (301) 947-2722 or by e-mail from pubs@nsf.gov.

Proposals must contain the following elements in the order indicated. Proposals that do not strictly adhere to the specified page limitations (given below) will be ineligible for consideration and will be returned without review.

1. **Cover Sheet for Proposals (NSF Form 1207):** In FastLane, for the "Program Announcement/Solicitation No.," select NSF 02-42. In the title section, enter "GK-12" at the beginning of the proposal title.
2. **Project Summary:** This section (limited to one page) must be suitable for publication and presented in the following format:

Title of Project:

Institution:

PI/Co-PI:

Number of Fellows per year (graduate vs. undergraduate):

Target audience of the project (K-12 grade-band):

NSF supported disciplines involved:

Include a brief description of the project, with objectives, activity theme(s), and innovative aspects of the project. This section is expected to indicate benefits to be achieved by both the K-12 and higher education partners.

3. **Project Description:** *This section is limited to 15 pages, including any visual materials (figures, charts, graphs, maps, photographs, etc.).* The Project Description should include the following subsections:
 - Goals and Objectives: Provide the conceptual focus, goals, and objectives of the project. Describe the activities that will form the foundation for the project.
 - Project Plan: It is important to indicate in this section not only what activities will be conducted but also how they will be implemented. The project plan is expected to:
 - clearly state what the Fellows will be doing;
 - demonstrate a clear parallel partnership and active participation by the institution(s) of higher education, GK-12 Fellows, local K-12 school district(s), GK-12 Teachers, and any participating community organizations;
 - incorporate training activities for GK-12 Fellows based on a disciplinary or multidisciplinary theme, integrating established mathematics and science standards;
 - incorporate training and/or professional development activities for GK-12 Teachers;
 - address plans to prepare GK-12 Fellows to serve as resources to GK-12 Teachers;
 - clarify in sufficient detail the benefit to GK-12 Fellows, GK-12 Teachers and K-12 schools in supporting this type of project;
 - indicate any relevant history by the higher education institution(s) in K-12 activities;
 - indicate how K-12 activities planned by participating institution(s) of higher education will be aligned with educational needs of K-12 schools;
 - describe implementation plans involving special populations in K-12 schools (e.g. underrepresented minorities, students at risk, with disabilities, with English as second language, etc.); and
 - incorporate a detailed plan indicating how the GK-12 Fellows will enhance K-12 STEM instruction in the specific school districts, including, as appropriate, their role in implementing inquiry-based instructional strategies and materials.

- **Recruitment and Selection:** Describe plans and procedures for the recruitment and selection of GK-12 Fellows, including specific provisions for success with women, underrepresented minorities and persons with disabilities. Provide reasonable estimates of the number of potential Fellows eligible and likely to be interested in participating. Also describe plans for the recruitment and selection of GK-12 Teachers.
- **Organization and Management:** The Principal Investigator (PI) will have overall responsibility for the administration of the award, the management of the project, and interactions with the NSF. The PI and the home institution are expected to develop an administrative structure that enables faculty, GK-12 Teachers, school administrators, Fellows, and others involved in the group effort to interact productively during the award period. The PI is expected to be an integral participant in the education and training activities of the GK-12 project.

This section is expected to:

- describe plans and procedures for the development of a management team for the proposed activity indicating how the responsibilities between team members will be allocated;
- indicate the number of GK-12 Fellows expected to be available to any given K-12 school district;
- specify a school-level implementation plan of GK-12 Fellows as resources in support of GK-12 Teachers;
- include assurances from the institution of higher education that the NSF funds will not supplant extant financial resources assigned to science and mathematics education with similar assurances from the school district in the statement from the superintendent of the K-12 district described below;
- describe how the activities will be sustained after the period of NSF funding; and
- **School District Participation:** Clearly indicate the specific schools where the GK-12 Fellows are expected to conduct their activities. A statement from the superintendent(s) of the local K-12 school district(s) should be included with the application. The local superintendent(s) or chief school officer(s) who can represent the school district and honor its financial commitments must sign this statement. (The statement with the original signature may be electronically scanned and incorporated into the Project Description PDF file). This statement should include:
 - some background about participating schools and demographics of student population;
 - specific STEM needs;
 - specific conditions in the K-12 schools under which Fellows are expected to operate (e.g. availability of technology and/or scientific materials);
 - coordinated plans of the district to receive GK-12 Fellows into its schools;
 - financial commitments or other support to be provided for GK-12 Teachers (e.g. release time, conference attendance, workshop participation, professional development units); and
 - incentives, recognition and awards to be provided to GK-12 Teachers for their participation in the GK-12 project.
- **Evaluation:** Describe an evaluation plan, including the performance indicators and other specific measures that will be used to assess the project's success in meeting its goals and objectives. Although each project should propose its own measures, some later standardization is anticipated so that NSF can conduct a program-wide evaluation of effectiveness.

This section is expected to:

- provide the basic data related to the operation of the proposed plan including number of GK-12 Fellows and GK-12 Teachers involved including the number of underrepresented minorities participating;
- indicate how the effectiveness of the training of GK-12 Fellows will be measured and how the impact of the program on the school districts and on the institutions will be evaluated;
- indicate plans for evaluation of the efficacy of project activities, including the development of a process for collecting and interpreting evaluative data and attributing impacts; and
- include timetables and metrics for accomplishments, as well as indicate who will be responsible for monitoring and evaluating the progress of this effort.

Project participants (PIs, Fellow and GK-12 Teachers) should be prepared to cooperate in an overall program evaluation to be conducted by the NSF.

- Results from Prior Support: Provide information about relevant funding that the PI or co-PI(s) has received during the past five years related to GK-12 activities.
- List of Faculty Participants: Include departmental and, if appropriate, institutional affiliation of all faculty participants expected to mentor GK-12 Fellows or to otherwise play an important role in the project.

4. **Biographical Sketches:** This section must not exceed 2 pages per individual. For each of the personnel included on the list of faculty participants (Item 3g), provide: Biographical Sketch highlighting information that will help in understanding the qualifications that this individual will bring to the GK-12 project. This Biographical Sketch should include:

- Information about recent training activities. This should include the number and names of undergraduates and graduate students who carried out research under the faculty member's direction in each of the last three years. Also list the titles of courses taught by the faculty member during the past three years. Other relevant activities, such as organization of workshops or special courses, may be included.
- Information related to activities conducted in collaboration with K-12 schools or other educational organizations.
- A list of current and past collaborators including those with whom the faculty member has co-authored papers within the past four years.

Proposers are reminded to identify the program solicitation number (NSF 02-042) in the program announcement/solicitation block on the proposal Cover Sheet. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

B. Budgetary Information

Cost sharing is not required in proposals submitted under this Program Solicitation.

Indirect Cost (F&A) Limitations:

8% of Total Direct Costs, excluding fellowship stipends, cost-of-education allowances, and equipment.

Other Budgetary Limitations:

Provide a Summary Proposal Budget (NSF Form 1030) for each year of support requested. FastLane will create the cumulative budget automatically.

Recognizing the importance of infrastructure support and the significant involvement of faculty and GK-12 Teachers, up to 30% of the budget may be designated for direct costs other than student stipends, GK-12 teacher stipends and cost-of-education allowances. These funds are intended to supplement institutional and school district resources in support of GK-12 activities.

Funds may be requested for personnel to develop and construct special instruments, for the purchase of computer software, or for other special-purpose materials related to the project. Use of inquiry-based educational materials such as those developed under NSF support is encouraged. The total requested for software and special-purpose materials may not exceed \$10,000.

Funds may be requested for professional development, training or workshop participation for GK-12 Teachers.

Funds should be included for the PI and up to three participants to attend a meeting convened by NSF in Washington, D.C. The participants should include at least one GK-12 Teacher and one GK-12 Fellow.

Budget Justification: This section must not exceed 3 pages. A brief justification for funds in each budget category should be provided. This section should also include details of institutional cost sharing, if any, and of other sources of support for the GK-12 project, such as government, industry, or private foundations. (Although cost sharing is not required, any such commitment specified in the proposal will be referenced and included as a condition of an award resulting from this solicitation.) As part of this section, provide a list of all relevant documentation, including funding commitments by each institution and organization involved in the project as well as any other sources of funding. Letters or other documentation on the list of commitments should be included in the Supplementary Docs. Section. While there is no limit on the number of letters that may be listed, no more than six letters of commitment may be included as part of the proposal itself. Do not include additional letters of commitment, and do not list or include letters whose sole purpose is to endorse the project.

C. Deadline/Target Dates

Proposals must be submitted by the following date(s):

Letters of Intent (*required*): May 1, 2002

Full Proposals *by 5:00 PM local time*: June 10, 2002

D. FastLane Requirements

Proposers are required to prepare and submit all proposals for this Program Solicitation through the FastLane system. Detailed instructions for proposal preparation and submission via FastLane are available at: <http://www.fastlane.nsf.gov/a1/newstan.htm>. For FastLane user support, call 1-800-673-6188 or e-mail fastlane@nsf.gov.

Submission of Electronically Signed Cover Sheets. The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see [Chapter II, Section C](#) of the Grant Proposal Guide for a listing of the certifications). The AOR must provide the required certifications within five working days following the electronic submission of the proposal. Further instructions regarding this process are available on the FastLane website at: <http://www.fastlane.nsf.gov>.

VI. PROPOSAL REVIEW INFORMATION

A. NSF Proposal Review Process

Reviews of proposals submitted to NSF are solicited from peers with expertise in the substantive area of the proposed research or education project. These reviewers are selected by Program Officers charged with the oversight of the review process. NSF invites the proposer to suggest, at the time of submission, the names of appropriate or inappropriate reviewers. Care is taken to ensure that reviewers have no conflicts with the proposer. Special efforts are made to recruit reviewers from non-academic institutions, minority-serving institutions, or adjacent disciplines to that principally addressed in the proposal.

The two merit review criteria are listed below. The criteria include considerations that help define them. These considerations are suggestions and not all will apply to any given proposal. While proposers must address both merit review criteria, reviewers will be asked to address only those considerations that are relevant to the proposal being considered and for which he/she is qualified to make judgements.

What is the intellectual merit of the proposed activity?

How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

What are the broader impacts of the proposed activity?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

NSF staff will give careful consideration to the following in making funding decisions:

Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

Additional Review Criteria

In light of the GK-12 program's objectives, reviewers will be asked to consider the above two merit review criteria with emphasis placed on:

- Team composition and extent of collaboration between the proposing institution(s) of higher education and the participating K-12 school district(s).
- Consistency of project designs with mathematics and science standards established by national organizations, states, and school districts.
- Expected benefits to Fellows, their institutions of higher education, K-12 schools, and GK-12 Teachers.
- Importance of the disciplinary activity theme, including its effectiveness as an intellectual focus for the project.
- Excellence of the proposed outreach activity as reflected in the major outreach efforts.
- Quality of the planned education and training activities for GK-12 Fellows and GK-12 Teachers.
- Appropriateness of the administrative plan and organization structure in assuring fair and effective allocation of group resources.
- Effectiveness of the plans and procedures for the recruitment and selection of GK-12 Fellows and GK-12 Teachers, including attention to diversity.
- Appropriateness of the plans for evaluation of project performance, including longitudinal and process data.
- Appropriateness of the budget.
- Sustainability of the project activities beyond the period of NSF funding.

A summary rating and accompanying narrative will be completed and submitted by each reviewer. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers, are sent to the Principal Investigator/Project Director by the Program Director. In addition, the proposer will receive an explanation of the decision to award or decline funding.

B. Review Protocol and Associated Customer Service Standard

All proposals are carefully reviewed by at least three other persons outside NSF who are experts in the particular field represented by the proposal. Proposals submitted in response to this announcement/solicitation will be reviewed by Panel Review.

Reviewers will be asked to formulate a recommendation to either support or decline each proposal. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

In most cases, proposers will be contacted by the Program Officer after his or her recommendation to award or decline funding has been approved by the Division Director. This informal notification is not a guarantee of an eventual award.

NSF is striving to be able to tell applicants whether their proposals have been declined or recommended for funding within six months for 70 percent of proposals. The time interval begins on the date of receipt. The interval ends when the Division Director accepts the Program Officer's recommendation.

In all cases, after programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements for review of business, financial, and policy implications and the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at its own risk.

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

Notification of the award is made to *the submitting organization* by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program Division administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See section VI.A. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable award conditions, such as Grant General Conditions (NSF-GC-1)* or Federal Demonstration Partnership (FDP) Terms and Conditions;* and (5) any announcement or other NSF issuance that may be incorporated by reference in the award letter. Cooperative agreement awards also are administered in accordance with NSF Cooperative Agreement Terms and Conditions (CA-1). Electronic mail notification is the preferred way to transmit NSF awards to organizations that have electronic mail capabilities and have requested such notification from the Division of Grants and Agreements.

*These documents may be accessed electronically on NSF's Web site at http://www.nsf.gov/home/grants/grants_gac.htm. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (301) 947-2722 or by e-mail from pubs@nsf.gov.

More comprehensive information on NSF Award Conditions is contained in the NSF *Grant Policy Manual* (GPM) Chapter II, available electronically on the NSF Web site at <http://www.nsf.gov/cgi-bin/getpub?gpm>. The GPM is also for sale through the Superintendent of Documents, Government Printing Office (GPO), Washington, DC 20402. The telephone number at GPO for subscription information is (202) 512-1800. The GPM may be ordered through the GPO Web site at <http://www.gpo.gov>.

Special Award Conditions

PIs, K-12 Teachers, and GK-12 Fellow representatives are expected to attend a meeting in Washington, D.C. convened by NSF to exchange ideas, to establish and strengthen communication networks, to learn about the activities of GK-12 Fellows, and to discuss ways of measuring progress. This group will also discuss the effectiveness of GK-12 activities in preparing the Fellows for careers in STEM fields and enhancing K-12 instruction.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the PI must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period.

Within 90 days after the expiration of an award, the PI also is required to submit a final project report. Approximately 30 days before expiration, NSF will send a notice to remind the PI of the requirement to file the final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

NSF has implemented an electronic project reporting system, available through FastLane. This system permits electronic submission and updating of project reports, including information on project participants (individual and organizational), activities and findings, publications, and other specific products and contributions. PIs will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system.

VIII. CONTACTS FOR ADDITIONAL INFORMATION

General inquiries regarding NSF GRADUATE TEACHING FELLOWS IN K-12 EDUCATION should be made to:

- Dr. Terry Woodin, Division of Graduate Education, Room 907, telephone: (703) 292-8697, e-mail: twoodin@nsf.gov.
- Carolyn Lyons Piper, Division of Graduate Education, Room 907, telephone: (703) 292-8697, e-mail: cpiper@nsf.gov.

For questions related to the use of FastLane, contact:

- Sheryl Balke, Division of Graduate Education, 907, telephone: 703-292-8630, e-mail: sbalke@nsf.gov.

Applicable Catalog of Federal Domestic Assistance (CFDA) Nos.: 47.041, 47.049, 47.050, 47.070, 47.074, 47.075, 47.076, and 47.078

IX. OTHER PROGRAMS OF INTEREST

The NSF *Guide to Programs* is a compilation of funding for research and education in science, mathematics, and engineering. The NSF *Guide to Programs* is available electronically at <http://www.nsf.gov/cgi-bin/getpub?gp>. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter.

Many NSF programs offer announcements or solicitations concerning specific proposal requirements. To obtain additional information about these requirements, contact the appropriate NSF program offices. Any changes in NSF's fiscal year programs occurring after press time for the *Guide to Programs* will be announced in the NSF [E-Bulletin](#), which is updated daily on the NSF web site at <http://www.nsf.gov/home/ebulletin>, and in individual program announcements/solicitations. Subscribers can also sign up for NSF's [Custom News Service](#) (<http://www.nsf.gov/home/cns/start.htm>) to be notified of new funding opportunities that become available.

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PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to applicant institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies needing information as part of the review process or in order to coordinate programs; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

Pursuant to 5 CFR 1320.5(b), an agency may not conduct or sponsor, and a person is not required to respond to an information collection unless it displays a valid OMB control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Suzanne Plimpton, Reports Clearance Officer, Information Dissemination Branch, Division of Administrative Services, National Science Foundation, Arlington, VA 22230, or to Office of Information and Regulatory Affairs of OMB, Attention: Desk Officer for National Science Foundation (3145-0058), 725 17th Street, N.W. Room 10235, Washington, D.C. 20503.

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